

**LISTING OF THE CLAIMS:**

Claims 1-7 (Cancelled).

8. (Currently Amended) A method of encoding data in an optical signal including a center wavelength, the method comprising:

directing the optical signal through a filter mechanism having a passband function including a center wavelength; and

modulating the center wavelength of the optical signal to establish a difference between the center wavelengths of the filter mechanism and the optical signal to represent data;

wherein:

the represented data are analog data; and the modulating step includes the steps of

- i) providing a look-up table having wavelength differences associated with data values,
- ii) value, obtaining from the look-up table a wavelength difference for a given data value,  
and

iii) encoding the given data value in the optical signal by establishing the obtained difference between the center wavelengths of the filter mechanism and the optical signal.

Claims 9-20 (Cancelled).